

"Express Mail" Label No. EL623999207US

Date of Deposit April 19, 2001

PATENT
Attorney Docket No.: 2307O-115710US
Client Ref. No.: 1999-004-1

BOX PATENT APPLICATION
Assistant Commissioner for Patents
Washington, D.C. 20231

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

MICHAEL J. DELWICHE, et al.

Divisional of Application No.:
09/349,814

Filed: July 9, 1999

For: SENSOR FOR ANALYZING
COMPONENTS OF FLUIDS

Examiner: Redding, D.

Art Unit: 1744

PRELIMINARY AMENDMENT

BOX PATENT APPLICATION
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination of the above-referenced application, please enter the following amendments and remarks.

IN THE SPECIFICATION:

On the first page of the specification, before "FIELD OF THE INVENTION" insert a new paragraph as follows:

--CROSS-REFERENCES TO RELATED APPLICATIONS

This application is a divisional of and claims the benefit of U.S. Application No. 09/349,814, filed July 9, 1999, the disclosure of which is incorporated by reference.--

IN THE CLAIMS:

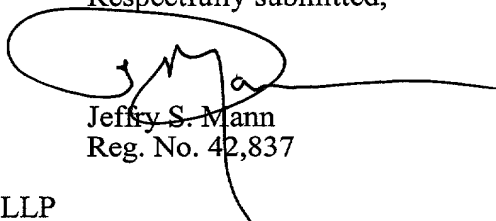
Please cancel Claims 1-10 of the prior application. Claims 11-20 are pending. A copy of the pending claims are attached in the Appendix of this Amendment for the Examiner's convenience.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



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09/349,814

PENDING CLAIMS

11. A method of analyzing a component of an enzymatically catalyzed process from a test sample, comprising:

providing a liquid sample of the test sample;

contacting the sample either with an enzyme for which the component is a substrate or with a substrate for which the component is an enzyme, wherein the contacting forms carbonate ion in equilibrium with carbon dioxide; and, detecting the carbon dioxide.

12. The method as in a claim 11 wherein the biological fluid is blood, urea or milk and the component is urea.

13. A method of analyzing milk urea nitrogen (MUN) in dairy milk, comprising:

providing a dairy milk sample;

contacting the sample with urease, at least one of the dairy milk sample and the urease being in a liquid solution, wherein the contacting forms an equilibrium between carbonate ion and carbon dioxide;

shifting the equilibrium towards carbon dioxide; and,
detecting carbon dioxide.

14. The method as in claim 13 wherein the carbon dioxide is detected as a vapor phase in fluid communication with the liquid solution.

15. The method as in claim 13 wherein the carbon dioxide is detected as a partial pressure.

16. The method as in claim 13 wherein the equilibrium is shifted by admixing the liquid solution with a pH adjusting agent.

17. The method as in claim 13 further comprising correlating the carbon dioxide detected to the concentration of MUN in the dairy milk sample.

18. The method as in claim 13 wherein the contacting includes agitating the dairy milk sample.

19. The method as in claim 17 wherein the prediction error for MUN in the dairy milk sample is not greater than about +1- 1 mg/dl.

20. The method as in claim 13 wherein the urease is immobilized.

for the purpose of the present invention